

KOCHANOWICZ, Jan; PLETELNICKA, Hanna; CHWALIBOG, Barbara

Functional impairment following thoracic surgery in patients
who underwent physical therapy. Gruzlica 33 no.4:301-312
Ap '65.

1. Z Pracowni Rehabilitacji Leczniczej (Kierownik: lek. J. Ko-
chanowicz) i z Klinik Instytutu Gruźlicy.

CHWALIBOG, B.

Cytology of bronchial secretions. Gruslica, Warsz. 19 no.1:24-32
Jan-Feb 1951. (CLMI 22:3)

1. Of the Institute of Tuberculosis (Director--Docent J. Misiewicz,
M. D.), Warsaw.

CHWALIBOG H.

Poland /Chemical Technology. Chemical Products
and Their Application

I-9

Fertilizers

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31297

Author : Chwalibog H.

Title : Principal Technical Problems of Superphosphate
Industry

Orig Pub: Przem. chem., 1956, 12, No 8, 421-423

Abstract: A comparison of the processes of superphosphate
production; of the intermittent, semi-continuous
(continuous mixing and intermittent aging in the
chamber) and continuous, emphasizing the advan-
tages of the last mentioned.

Card 1/1

CHWALIBOG, Henryk

POLAND/ Chemical Technology. Chemical Products and Their I-2
Application - Sulfuric acid, sulfur and its compounds.

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 12326

Author : Chwalibog Henryk

Title : Fluidization Furnaces for Pyrite Roasting

Orig Pub : Fluidyzacyjne piece pirytowe. Chemik, 1956, No 4,
103-106 (Polish)

Abstract : Listed are the advantages and characteristics of furna-
ces for sulfide roasting in a pseudofluidized state.
A description is given of the types of fluidization
furnaces utilized in the People's Republic of Poland.

Card 1/1

- 5 -

CHWALIBOG, H

Planning bureaus. p. 82.

(CHEMIK, Vol. no. 3, Mar. 1957, Warsaw, Poland)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 9 Sept. 1957 Uncl.

POLAND/Chemical Technology. Chemical Products
and Their Applications. Elements. Oxi-
des. Mineral Acids. Bases. Salts.

H-3

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 23931

Author : Chwalibog, H.

Inst : -

Title : Remarks Pertaining to Problems of Utiliza-
tion of the Excessive Heat at the Sulfuric
Acid Plants.

Orig Pub : Energ. przemysl. Gospod. cieplna, 1957, 5,
No 1, 8-12

Abstract : Possible ways of utilizing excessive heat
generated in the roasting of sulfides at
the sulfuric acid plants have been reviewed.
The necessity of removing heat is due to tem-

Card : 1/2

H - 35-

POLAND/Chemical Technology. Chemical Products
and Their Applications. Elements. Oxides.
Mineral Acids. Bases. Salts.

H-8

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 23931

perature limitations ($\leq 700-800^{\circ}$) which shall not be exceeded in order to prevent clinkering. In this connection the economy of coal comprizes 40,000-60,000 tons/year. The excessive heat may be utilized in the steam generators of the Skoda type and in turbins up to 1,000 kw in capacity. -- S. Yavorovskaya

Card : 1/1

Category: : Chemical Technology. Chemical Products and Their
Application--Oxides. Elements. Mineral acids.
Abs. Jour. : Bases. Salts
Referat Zhur--Khim., No 11, 1959, 39195
Author : Chwalibog, H.
Institut. : Not given
Title : Sulfuric Acid from Sulfur

Orig. Pub. : Khimik, 10, No 7-8, 202-211 (1957)

Abstract : A review article. A flow sheet of a sulfuric acid
plant is included. The equipment and technological
processes used in the production of H_2SO_4 from S
are discussed.

S. Yavorovskaya

Card: 1/1

H-24

POLAND/Chemical Technology. Chemical Products
and Their Applications. Elements. Oxides.
Mineral Acids. Bases. Salts.

H

Abs Jour : Ref Zhur-Khimiya, No 6, 1959, 19985

Author : Chwalibog, H.

Inst : -

Title : Furnaces for Burning Pyrites in a Semi-
molten Layer.

Orig Pub : Przem. chem., 1957, 13, No 3, 139-143

Abstract : A theory of the semiliquid layer is presented; equations are given for the calculation of the resistance of the layer and the rate of gas flow. Aerodynamic processes are examined which take place in the semiliquid layer of the pyrite furnaces. It is indicated

Card : 1/2

CHEWALIBOG, H.

Lacq, the source of gas and sulfur. p. 58.

CHEMIK. (Ministerstwo Przemyslu Chemicznego i Stowarzyszenie Naukowe-Techniczne Inzynierow i Technikow Przemyslu Chemicznego) Warszawa. Poland. Vol. 5, no. 2, February 1959.

Monthly List of East European Accessions (EEAI) LC. Vol. 8, no. 8, August, 1959.

Uncl.

CHWALIBOG, H.

The ONIA Combine in Toulouse. p. 106.

CHEMIK. (Ministerstwo Przemyslu Chemicznego i Stowarzyszenie Naukowe-Techniczne Inzynierow i Technikow Przemyslu Chemicznego) Warszawa, Poland Vol. 12, no. 3, Mar. 1959.

Monthly List of European Accessions (EEAI) LC, Vol. 8, no. 7, July 1959.

Uncl.

CHWALIBOG, Henryk, mgr inż.

Remarks on factories preparing sulfuric acid from sulfur.
Chemik 17 no. 118/113-116 N '64.

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
CHWALIBOG CA Some problems of sulfuric acid manufacture. II. Chwalibog. <i>Przeplad Chem.</i> 6, 324-7 (1948).--A discussion of certain problems met with in the chamber method. Several formulas are cited relating to various production steps in Petersen-type multiple towers. A. Spozzynski																			
ASR-SLA METALLURGICAL LITERATURE CLASSIFICATION																			

CHWALIBOG, J., URBANSKI, M. and BARTOSZ, B., Wojewodztwo Veterinary
Hygiene Office (Wojewodzki Zaklad Higieny Weterynaryjnej) Gorzow Wlkp.
Dr. J. Chwalibog, Head.

"Diarrhea in Swine Caused by a Strain of Bacteria with Biochemical
Properties of E. coli and Antigen Properties of S.flexneri"

Lublin, Medycyna Weterynaryjna, Vol 22, No 5, pp 273

Abstract: The rarely encountered strain of Escherichia coli serologically
identical with S. flexneri 3a was isolated. Experimental infection of
swine showed this strain to be semi-pathogenic, capable of creating the
full pathogenic symptom only under favorable conditions (e.g. malnutri-
tion).

No references.

- END -

CS0: 2000-N

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- 76 -

CHWALIBOG, J.

"Remote Control And The Automatics Of Street Lighting" p. 203.
(Przegląd Elektrotechniczny, Vol. 29, no. 5, May 1953, Warszawa)

SO: Monthly List of ^{East European} ~~Russian~~ Accessions, Vol. 3, No. 2,
Library of Congress, February, 1954, 1955, Uncl.

CHWALIBOG, V.

P O L .

1506. Typical 110 kV electric power lines. J. CHWALIBOG, W. DZIEL, Z. WILK AND Z. ZARUDZINSKI.

Przeglad elektrotech., 30, No. 9, 381-6 (1954) In Polish.

Aluminium cables steel-reinforced have been chosen for transmission of 30-40 MW over approx. 50 km. Two overhead ground wires are multi-grounded on steel tower lines. Wood-pole lines have only 2 km of overhead ground wire on approaches to substations. Tensions in ACSR at 15°C limited to 20% of ultimate strength, in steel wire to 15%. Steel towers are designed for spans of 300 m., wood structures for 200 m. span. Six insulators of two types were used for suspension and dead-end strings. Steel towers, lattice, multiple-braced, are factory-welded in sections for bolting on site. Semi-dead-end towers were designed for one broken conductor. Only 6 types of towers were designed, heights being suitably increased by standard footing extensions. The type of prefabricated foundation to be used depends on soil classification. Wooden structures use only gusset plates with U-bolts, no through bolts, a single pole diagonal brace; the welded crossarm will be superseded by timber. Adequate foundations and structure height are obtained by use of prefabricated reinforced concrete stubs with horizontal cross-pieces.

J. LUKASZEWICZ

CHWALIBOG, J. ; DEMEL, W.

Possibilities of applying multicore conductors in our 220-kilovolt network. p. 159. PRZEGLAD ELEKTROTECHNICZY, Warszawa. Vol. 32, no. 4, Apr. 1956.

SOURCE:

East European Acession List (EEAL) Library of Congress
Vol. 5, no. 8, August 1956.

CHWALIBOG, J.

Method of dosage of antibacterial sera. Med.wet. 6 no.9:518 Sept
50. (CLML 20:5)

1. Regional Institute for Serum Production (Head--Jan Chwalibog,
M.D.) attached to the National Veterinary Institute Branch in Gor-
zow.

CHWALIBOB, Jan
SURNAME, Given Names

Country: Poland

Academic Degrees: Dr.

Affiliation: Director of the Wojewodztwo Department of Veterinary Hygiene
(Wojewodzki Zaklad Higieny Weterynaryjnej), Gorzow Wlkp.

Source: Warsaw, Medycyna Weterynaryjna, Vol XVII, No 8, August 1961,
pp 454-458.

Data: "Diseases of Pigs in the Zielonagora Wojewodztwo in 1960."

070 981643

POLAND

CHWALIBOG, Jan, Dr., Director of the Wojewodztwo Department of Veterinary Hygiene (Wojewodzki Zaklad Higieny Weterynaryjnej) in Gorzow Wielkopolski.

"Susceptibility to Antibiotics of Some Pathogenic Microorganisms."

Warsaw-Lublin, Medycyna Weterynaryjna, Vol 18, No 12, Dec 62, pp 728-730.

Abstract: A study performed by the author, with tabulation of results, aimed at recommendation to the field services on when to use antibiotics, which, and how much. All five references are to Polish periodicals.

1/1

POLAND

CHWALIEG, Jan, Dr., Director of the WZHW [Wojewodzki Zaklad Higieny Weterynaryjnej, Wojewodztwo Office of Veterinary Hygiene] in Gorzow Wielkopolski and BARTOSZ, Bogdan, lek. wet., director of the Fattening Division (Tuczarnia) of the WPPM [Wojewodzkie Przedsiębiorstwo Produktow Miesnych, Wojewodztwo Enterprise for Meat Products] in Dobigniew.

"Oedematous Diseases of Piglets in an Industrial Fattening Center."

Warsaw-Lublin, Medycyna Weterynaryjna, Vol 19, No 2, Feb 63, pp 75-76.

Abstract: Case report of an outbreak of oedematous diseases at the fattening center in Dobigniew, with veterinary service provided by the WZHW in Gorzow. The clinical picture, probable etiology, treatment, and suggested prophylactic measures are discussed for this disease, which was relatively unknown a few years ago, but is now on the uprise in Europe, and Poland. No references.

1/1

POLAND

CHWALIBOG, Jan, Dr., Director of the WZHW [Wojewodzki Zaklad Higieny Weterynaryjnej, Wojewodztwo Office of Veterinary Hygiene] in Gorzow Wielkopolski.

"One More Case of Myxomatosis of Rabbits."

Warsaw-Lublin, Medycyna Weterynaryjna, Vol 19, No 2, Feb 63, p 78.

Abstract: Author reports on the diagnosis of what he believes to be the second reported case of myxomatosis of a rabbit in Poland and thinks that the virus may have penetrated into Poland from nearby Czechoslovakia or East Germany, where cases of this disease were noted. No references.

1/1

CHWALIBOGOWSKI, A.

Nature of tuberculous-tuberculin allergy; principles of allergometry and its clinical significance in tuberculosis in children.
Pediat.polska 24 no.10:837-848 Oct 50. (CLML 20:5)

1. Of the Pediatric Clinic (Head--Prof.A.Chwalibogowski,M.D.). of Szczecin Medical Academy.

CHWALIBOGOWSKI, Artur; LAZOWSKI, Z.

Intoxication and side effects of salicylates. Pediat.polska
30 no.11:1030-1044 Nov. '55.

1. Z Kliniki Chorob Dzieci Slaskiej A.M. w Rokitnicy-Zabrze
Kierownik: prof.dr med. A. Chwalibogowski. Zabrze, 3 Maja 63,
Klin.Chor.Dziec.

(SALICYLATES, injurious effects,
sodium salicylate in rheum.fever)
(RHEUMATIC FEVER, therapy,
sodium salicylate, inj.eff.)

EXCERPTA MEDICA Sec 8 Vol 12/3 Neurology Mar 59

1568. LONG-TERM CATAMNESES CONCERNING THE PSYCHIC STATE OF CONVALESCENTS AFTER TUBERCULOUS MENINGO-ENCEPHALITIS -
Odległe katamnezy dotyczące psychiki ozdrowieńców po gruźliczym zapaleniu opon mózgowych i mózgu - Chwalibogowski A. and Waltenberger Z.
Klin. Chir. Dzieci Śląskiej A.M., Zabrze - NEUROL. NEUROCHIR. PSYCHIAT.
1956, 7/suppl. 4 (567-569)

Seventy-seven children who had been treated with streptomycin during the period 1948-1954 were re-examined in 1956: 60% were completely normal, 21% showed only slight deviations from normal. Distinct abnormal neuropsychic or neurosomatic phenomena were observed in 19% of these cases.

Kukowka - Greiz (L,7,8,15)

CHWALIBOGOWSKI, A.; KROCZAK, J.; SPETT, J.; METZGER, M.; ROMANSKA, K.;
~~RODNIOWA~~, I.; SROCZYNSKA, M.

Role of Salmonella and Shigella in etiology of diarrhea in
in infants and small children. Pediat. polska 31 no.2:139-154
Feb 56.

1. Z Kliniki Chorob Dzieciacych Sl. A.M. w Zabrze. Kierownik:
prof. dr. med. A. Chwalibogowski i z Zakladu Mikrobiologii Sl.
A.M. w Zabrze Kierownik: prof. dr. med. S. Slopek. Zabrze, ul.
3 Maja 63, Klinika Chorob Dzieci A.M.

(SALMONELLA INFECTIONS, in infant and child,
diarrhea (Pol))

(SHIGELLA, infections,
diarrhea in inf. & child. (Pol))

(DIARRHEA, in infant and child,
Salmonella & Shigella infect. (Pol))

CHWALIBOGOWSKI, A.; WYRZYKOWSKA, I.; SPIOCHOWA, M.

Case of Brill-Symmers disease in a 12-year-old child. Pediat.
polska 31 no.5:535-541 May 56.

1. Z Kliniki Chorob Dzieci Kierownik: prof. dr. med.
A. Chwalibogowski i z Zakl. Anat. Patolog. Slajskiej A.M. w
Rokitnicy-Zabrze, Kierownik: prof. dr. med. W. Niepolomski,
Zabrze, 3 Maja 63, Klinika Pediatria A.M.
(LYMPHOSARCOMA,
giant follicular in adolescent (Pol))

CHWALIBOGOWSKI, A.; ROMANSKA, K.; SROCZYNSKA, M.

Case of dermatomyositis in a 6-year-old child. "Pediat. polska
31 no.6:674-678 June 56.

1. Z Kliniki Chorob Dzieci Slaskiej A.M. w Roktynicy- Zabrze
Kierownik: prof. dr. med. A. Chwalibogowski, Zabrze, ul. 3 Maja
63.

(DERMATOMYOSITIS, in infant and child,
case report (Pol))

EXCERPTA MEDICA Sec 7 Vol. 11/6 Pediatrics June 57

5)

1523. CHWALIBOGOWSKI A. and WALTENBERGER Z. Klin. Chor. Dzieci Śląskiej A.M., Zabrze. *Stan psychiczny dzieci po gruźliczym zapaleniu opon i mózgu. The psychic state of children after tb meningitis and encephalitis PEDIAT. POL. 1956, 31/II (1189-1204) Tables 4
Ninety-five children 3 to 19 yr. old who were treated in the years 1948-1954 were examined. I.Q. was determined by means of Binet and Terman's tests, on the basis of behaviour of the children in question and the evaluation of their work. Real psychical disturbances noted in the course of tb meningitis are due to anatomical changes similarly as the heavy neurosomatic lesions. Toxins and the products of tubercle bacilli metabolism and toxic action of streptomycin may exert an influence on the psychical state of the child during the illness. An important factor influencing the psychical state of a child is the long-lasting hospitalization. 81% convalescents are children fully recovered without any difference in comparison with other children of the same age and fit to do mental work. 12% were children handicapped intellectually qualifying them in the future to work in less responsible positions. The remaining 7% of convalescents are a burden to the community: 5% due to serious mental defects, 2% due to serious character defects. (XX, 8, 7, 15)

CHWALIBOGOWSKI, A.
CHWALIBOGOWSKI, A.; HAGER-MALECKA, B.

Clinical manifestations & therapy of pulmonary tuberculosis in infants & young children. *Pediat. polska* 32 no.11: 1199-1219 Nov 57.

1. 2 Kliniki Chorob Dzieci Slaskiej A. M. w Zabrze. Kierownik: prof.
dr A. Chwalibogowski. Adres: Zabrze, ul. 3 Maja 63.
(TUBERCULOSIS, PULMONARY, in inf. & child
clin. manifest. & ther. (Pol))

CHWALIBOGOWSKI, ARTUR

CHWALIBOGOWSKI, Artur; WALTENBERGER, Zofia

Psychic condition of convalescents after tuberculous meningoencephalitis
based by catamnesis. *Pediat. polska* 32 no.11:1243-1253 Nov 57.

1. Z Kliniki Chorob Dzieci Slaskiej A. M. w Zabrzu Kierownik: prof.
dr A. Chwalibogowski. Adres: Zabrze, ul. 3 Maja 63.

(TUBERCULOSIS, MENINGEAL, psychol.

of convalescents after tuberc. meningoencephalitis (Pol))

CHWALIBOGOWSKI, Artur; ROMANSKA, Krystyna; WALTENBERGER, Zofia

Can salicylic acid amide be used in rheumatic disease? *Rumatologia*
Polska. no.3:393-396 '60.

1. Z Kliniki Chorob Dzieci Sl. Ak. Med. w Zabrze Kierownik: prof.
dr med. A. Chwalibogowski
(SALICYLAMIDES ther)
(RHEUMATIC FEVER ther)

CHWALIBOGOWSKI, A.; ROMANSKA, K.; WALTENBERGER, Z.

A case of angioma cavernosum of the stomach and of the lower portion of the esophagus in a 14-year-old girl. *Pediat.polska* 35 no.7: 793-796 J1 '60.

1. Z Kliniki Chorob Dzieci Slaskiej A.M. w Zabrze Kierownik: prof. dr med. A.Chwalibogowski.

(ANGIOMA in adolescence)

(STOMACH NEOPLASMS in adolescence)

(ESOPHAGUS neopl)

CHWALIBOGOWSKI, Artur; MALECKA, Bożena; KOBERSKA, Alicja; SZCZEPANSKI, Zbigniew

Studies on dynamic criteria of pathological processes in tuberculous
cerebrospinal meningitis. Gruzlica 29 no.2:145-152 P '61.

1. Z Kliniki Chorob Dzieci Śląskiej AM w Zabrzu Kierownik: prof. dr
med. A. Chwalibogowski.

(TUBERCULOSIS MENINGEAL blood)
(BLOOD PROTEINS)

CHWALIBOGOWSKI, A.; ROMANSKA, K.; WALTENBERGER, Z.

A case of chondroblastoma in a 12-year-old girl. *Pediatr polska* 36
no.3:291-294 '61.

1. Z Kliniki Chorob Dzieci Slaskiej A.M. w Zabrze Kierownik:
prof. dr med. A. Chwalibogowski.

(CHONDROBLASTOMA in inf & child) (SHOULDER neopl)

CHWALIBOGOWSKI, Artur; HAGER-MALECKA, Bożena

Clinical aspects of tuberculous meningoencephalitis. Gruzlica
30 no.10:901-907 '62.

1. Z Kliniki Chorob Dzieci Slaskiej AM w Zabrze Kierownik:
prof. dr med. A. Chwalibogowski.

(TUBERCULOSIS IN CHILDHOOD)
(TUBERCULOSIS, MENINGEAL)
(STATISTICS)

CHWALIBOGOWSKI, Artur; HAGER-MALECKA, Bozena; KOBIERSKA, Alicja

Methods and results of the treatment of tuberculous meningitis in 1952-1960. Gruzlica 30 no.11:1039-1044 '62.

1. Z Kliniki Chorob Dzieci Slaskiej AM w Zabrze. Kierownik: prof. dr med. A. Chwalibogowski.

(TUBERCULOSIS MENINGEAL)

CHWALIBOGOWSKI, Artur; KRAUZE, Mieczyslaw; ZAREBA, Jerzy

Neoplasms in children in the light of 10-year observations
in the Pediatric Clinic in Zabrze. Pediat. pol. 38 no.6:
529-536 Je '63.

1. Z Kliniki Chorob Dzieci Slaskiej AM Kierownik: prof. dr
med. A. Chwalibogowski.

(NEOPLASM STATISTICS)

CHWALIBOGOWSKI, Artur; KRAUZE, Mieczyslaw; KOSSOWSKI, Andrzej .

Pyothorax and pyopneumothorax in children in the antibiotic
era. Pol. tyg. lek. 18 no.42:1559-1562 14 0'63.

1. Z Kliniki Chorob Dzieci Sl. AM.; kierownik: prof. dr.med.
Artur Chwalibogowski).

*

CHWALIBOGOWSKI, Artur [deceased]; SROCZYNSKA, Maria; KOBINRSKA-SYCZEPANSKA,
Alicja

Observations on leukemia in children. I. Acute leukemia. Pol. tyg.
lek. 19 no.17:619-623 20 Ap '64.

1. Z Kliniki Chorob Dzieci Sl. Akademii Medycznej w Zabrze (kierownik:
prof. dr. Artur Chwalibogowski [deceased]).

CHWALIBOGOWSKI, Artur [deceased], SROCZYNSKA, Maria; KOBIERSKA-SZCZEPANSKA,
Alicja

Observations on leukemia in children. II. Chronic leukemia.
Pol. tyg. lek. 19 no.24:905-907 8 Je '64.

1. Z Kliniki Chorob Dzieci Sl. Akademii Medycznej w Zabrze
(kierownik: prof. dr med. Artur Chwalibogowski[deceased]).

CHWALIBOGOWSKI, Artur [deceased]; SOBANSKI, Tadeusz; ZAREBA, Jerzy

Detection of mucoviscidosis among children with chronic respiratory and/or digestive diseases. *Pediat. Pol.* 39 no.9: 1021-1024 S '64

Results of mass tests for minimal or residual cases of mucoviscidosis. *Ibid.*:1025-1029

1. Z Kliniki Chorob Dzieci Slaskiej Akademii Medycznej w Zabrze (Kierownik: prof. dr. med A. Chwalibogowski [deceased]).

CHWALIBOGOWSKI, Artur [deceased]; KRYSOWSKA, Anna; NOPSKA, Irena

Fate of children after birth injuries of the central nervous system. *Pediat. Pol.* 39 no.9:1037-1044 S '64

1. Z Kliniki Chorob Dzieci Slaskiej Akademii Medycznej w Zabrze (Kierownik: prof. dr. med. A. Chwalibogowski [deceased]) i z Oddzialu noworodkow I Kliniki Poloznictwa i Chorob Kobiety Slaskiej Akademii Medycznej w Zabrze (Kierownik: prof. dr. med. M. Glowinski).

CHWALIBOGOWSKI, Artur [deceased]; BRZOZOWSKA, Helena

Morbidity of infant diarrhea according to data of the Children's
Clinic in Zabrze. *Pediat. Pol.* 39 no.9:1045-1055 S '64.

1. Z Kliniki Chorob Dzieci Śląskiej Akademii Medycznej w Zabrze
(Kierownik: prof. dr. med A. Chwalibogowski [deceased]).

CHWALIBOGOWSKI, Artur, prof. dr. med. [deceased]; SOBANSKI, Tadeusz.

The value of corticosteroids in the therapy of rheumatic endo-
myocarditis evaluated after prolonged observation. Reumatologia
(Warsz) 3 no.1:43-48 '65.

1. Z Kliniki Chorob Dzieci Slaskiej Akademii Medycznej w Zabrze
(Kierownik: prof. dr. med. A. Chwalibogowski [deceased]).

BRUHL, W.; CHWALINSKA-SADOWSKA, H.; Przy współpracy: WEHR, J.; SWIATEK, Z.

Attempted diagnosis of osteoporosis with the use of ultrasonics.
Reumatologia (Warsz.) 1 no.3-4:211-216 '63.

1. Z Instytutu Reumatologicznego w Warszawie i Instytutu
Podstawowych Problemow Techniki Polskiej Akademii Nauk w
Warszawie.

BRÜHL, Włodzimierz; CHWAŁINSKA-SADOWSKA, Hanna

New views on the etiology and treatment of osteoporosis.
Reum. Pol. 2 no. 2:163-167 '64.

1. Z Instytutu Reumatologicznego w Warszawie (Dyrektor: dr
med. W.Brühl).

CHWALINSKA-SADOWSKA, Hanna

Recent data on the regulation of sodium-phosphate metabolism.
Reumatologia (Warsz.) 2 no.3:273-281 '64.

1. Z Instytutu Reumatologicznego w Warszawie (Dyrektor: dr
med. W. Bruhl).

CHWALINSKI, Krzysztof

Observations on the biology of the pine blight *Lophodermium pin-*
astri (Schrad.) Chevall. in 1962. Prace nauk roln i lesn 17 no.1:
3-19 '64.

1. Department of Forest Phytopathology, College of Agriculture,
Poznan.

POLAND/Organic Chemistry. Organic Synthesis.

G

Abs Jour: Ref Zhur-Khin., No 11, 1959, 38732.

Author : Chwalinski, S. and Rypinska, W.

Inst :

Title : The Esters of Chlorophosphoric Acid.

Orig Pub: Roczniki Chem, 31, No 2, 539-542 (1957) (in Polish with an English summary)

Abstract: The authors have used $C_6H_5SO_2NCl_2$ (I) in the chlorination of dialkylphosphates. The reaction with $(CH_3O)_2POH$ (II) gives 85% yields of $(CH_3O)_2POCl$ (III) and $C_6H_5SO_2NH_2$ (IV); CCl_4 is used as the solvent and IV precipitates out at the termination of the reaction. A solution of 25 gms II in 100 gms CCl_4 is treated slowly with stirring (50°) with

Card : 1/2

CHWALINSKI, Stanislaw; MIKULSKI, Andrzej; KOSSAKOWSKA, Maria

Fluid scintillation method for the measurement of tritium in the determination of total water content in rats. Acta physiol. Pol. 16 no.1:141-149 Ja-F'65.

1. Zaklad Patofizjologii Instytutu Reumatologicznego w Warszawie
(Kierownik: doc. dr. J. Ryzewski; Dyrektor Instytutu: dr. W. Bruhl).

CHWALINSKI, Stefan; SKORUPSKI, Wieslaw

Determination of paraformaldehyde by the hydroxylamine method using
sulfuric acid as the depolymerization agent. Chem anal 5 no.6:
1005-1109 '60. (EEAI 10:9)

1. Department of Chemistry II, Politechnika, Warsaw.

(Paraformaldehyde) (Hydroxylamine) (Sulfuric acid)
(Depolymerization)

CHWALINSKI, Stefan

Anna Chrzaszczewska; a biographic sketch. Przem chem
41 no.2:101 F '62.

CHWALISZ, BSC 6-127

Active masses and electrochemical processes in the silver-zinc cell. Gordon Chwalisz (Central Lab. Akumulatorów, Poznań, Poland). *Wiedomości Chem.* 11, 167-70 (1957).—A review with 30 references. A. Krokowski.

CHWASCINSKI, B.

The "sand-equivalent" test. p.70.

(DROGOWNICTWO. Vol. 12, No. 3, Mar. 1957. Warszawa, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 10, October 1957. Uncl.

CHWALKO, R.; NIEMYSKI, T.; SZCZERBA, S.

State and possibilities of application of thermoelectric cooling.
Przegl techn no.46:6,8 18 N '62.

1. Zakład Technologii Polprzewodników, Instytut Fizyki, Polska
Akademia Nauk, Warszawa.

CHWALKO, Ryszard; BRZOSKO, Witold

Semi-conduction refrigeration table for the microtome. Pat. polska 13
no.2:173-176 '62.

1. Z Zakladu Technologii Polprzewodnikow Instytutu Fizyki PAN Kierownik:
prof. L. Sosnowski Z Zakladu Anatomii Patologicznej Akademii Medycznej
w Warszawie Kierownik: prof. dr med. J. Dabrowska.
(MICROTOMY equip & supply)

CHWALKO, R., inz.

Semiconductors in the cooling industry. Horyzonty techniki
15 no.4:20-22 '62.

L 19652-65 EWG(j)/EWA(k)/FRD/WT(1)/EWP(e)/WT(m)/EEG(k)-2/EEG(t)/T/EEG(b)-2/EWP(k)/
EWP(b)/EWA(m)-2/EWA(h) Pn-l/Po-l/Pq-l/Pf-l/Pi-l/Pl-l/Peb IJP(c)/ASD(a)-5/AFETR/
RAEM(a)/ESD(gs)/ESD(t) WG/WH
ACCESSION NR: AP5001785 P/0053/64/000/011/0589/0596

AUTHOR: Stepinski, S.; Chwalko, R.

TITLE. Measurements of power output and characteristics of ruby laser
laser beam

SOURCE. Przegląd elektroniki, no. 11, 1964, 589-596

TOPIC TERMS: laser output analysis, ruby laser, interference filter,
discharge lamp, pumping source

ABSTRACT: Ruby lasers made at the Institute of Physics, Polish Academy
of Sciences, were investigated. The ruby crystals contained Cr ions
in 0.05% concentration. The silver-coated interference mirrors had
a reflection factor of 99.2—99.5% and a transmission factor of 2.8—6%
for the 6943-Å wavelength. Xenon-filled quartz and glass discharge
lamps served as pumping sources. A bridge calorimeter with a bolom-
eter was used for measuring the output power. Operational time of
the laser was about 1 μsec, duration of the measured laser pulse
was 5×10^{-5} , and the energy was of the order of 1 j. It was observed that

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L 19652-65

ACCESSION NR: AP5001785

at energy input above 1000 j, energy output was a linear function. For energy input close to the threshold, energy output was considerably less. This difference is ascribed to the spontaneous emission effect. At an energy input of 1760 j, peak power was about 2 kw, and the total energy output, 0.15 j. Average power output was 500 w. The time interval between input pulse and pulse of stimulated emission was 100—320 μ sec. Orig. art. has: 10 figures.

ASSOCIATION: Instytut fizyki PAN (Institute of Physics, PAN)

SUBMITTED: 30Jul64

ENCL: 00

SUB CODE: EC

NO REF SOV: 000

OTHER: 004

ATD PRESS: 3161

Cord 2/2

L 32026-66 FND/EEC(k)-2/T/EWP(k) IJP(c) WG

ACC NR: AP6020362

SOURCE CODE: PO/0045/66/029/006/0753/0757

AUTHOR: Chwalko, R.; Stepinski, S.; Hammer, H.

ORG: Institute of Physics, Polish Academy of Sciences, Warsaw

TITLE: Spatial coherence measurement of gas laser output

SOURCE: Acta physica polonica, v. 29, no. 6, 1966, 753-757

TOPIC TAGS: ~~laser~~, gas laser, laser beam, laser emission coherence

ABSTRACT: An investigation was made of the spatial coherence of an He-Ne laser beam. Measurements were made of the output radiation of a cw He-Ne gas laser operating at 6328 Å. The laser consisted of a quartz discharge tube 995 mm long filled with He at 0.5 mm Hg and Ne at 0.1 mm Hg. The tube, which was terminated with optical flats oriented at Brewster's angle, was made of high-optical-quality synthetic fused silica. The tube was placed between two external confocal spherical reflectors mounted 111.4 cm apart. The reflectors, which consisted of vapor-deposited dielectric layers, had reflection coefficients of 98.7 and 99.3%. Interference patterns for pin-holes spaced 1, 2, and 3 mm apart and the intensity distribution of interference fringes were obtained. Analysis of the interference patterns showed, in principle, that the degree of coherence of the laser radiation varied in different parts of the laser beam and greatly decreased in the direction opposite to the geometrical axis of the beam. The degree of coherence of the laser beam depends

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L 32026-66

ACC NR: AP6020362

greatly on the mode exhibited by the laser. It was concluded that the laser beam was "almost coherent" throughout its entire cross section and that a greater degree of coherence can be obtained for some modes. Comparison of the flux-density of a black-body radiation W_s and the flux-density of an "almost coherent" radiation beam W_p shows that $W_p = (0.16 \lambda)^2 W_s$. For a laser beam at $\lambda = 6328 \text{ \AA}$ the ratio W_p/W_s is more than 10^{10} times greater than for black-body radiation. Orig. art. has: [JA]

SUB CODE: 20/ SUBM DATE: 19Nov65/ OTH REF: 004/ ATD PRESS: 512/

Card

2/2

CHWASTEK, Maria

Influence of the nutritional resources of the soil and particularly the phosphorus content on the dominance of *Molinia coerules* (L.) Moench in the meadow sward. Prace nauk roln i leśn 14 no.3:277-356 '63 [publ. '64].

1. Department of Grasslands, Institute of Soil Improvements and Grasslands and Department of Meadow and Pasture Tillage, College of Agriculture, Poznan. Head: Prof. Dr M. Falkowski.

Distr: LE2c/LE3c/LE3d

27
A method for determining platinum in cathode slime during hydrogen peroxide manufacture. Marcell Struzyński and Józefina Chwałowska (Zakład Anal. Inst. Chem. Ogólny, Warsaw). *Chem. Anal.* 3, 640-64 (1968) (English summary); cf. McBryde, *C.A.* 49, 13821b.—The following reagents were used: 2N HNO₃ (I), concd. HCl (II); 1:1 HCl (III), 1:9 HCl (IV), 1:29 HCl (V), aqua regia (VI), 10% SnCl₂ (VII), and a standard soln. of Pt contg. 1 mg./ml. (prepd. by dissolving 0.5 g. Pt in VI, evapg. the soln. to dryness, adding 25 ml. II and 0.5 g. NaCl and evapg. 8 times, dissolving the residue in 20 ml. III, and dilg. the soln. with IV to 500 ml.) (VIII). Prepn. of a standard curve: dil. the standard Pt soln. 10 times with IV. Take various vols. of soln., add 20 ml. IV, 2 ml. VII, and dil. each time with water to 100 ml. Det. the extinction of the soln. and compare the results with blanks contg. only HCl and SnCl₂. *Detn. of Pt in cathode slime after extn.*: dissolve a 2-g. sample contg. no NH₄ salts in 30 ml. I, evap. to dryness, and treat with 10 ml. VI; then evap. 8 times with 30 ml. II (add 0.5 g. NaCl to last evapn.). Dissolve the dry residue in 25 ml. III, filter, wash the ppt. a few times with IV, dissolve in hot water, and leave to crystallize. Treat the filtrates with 12 ml. VII and dil. with III to 250 ml. Ext. 25 ml. of soln. 8 times with 10-15 ml. EtOH (if color is lost, add a few drops of SnCl₂); then evap. the ext. slowly to dryness. Dissolve residue in 10 ml. IV, add 2 ml. VII, dil. with water to 50 ml., and det. the extinction on a Pulfrich photocolormeter with 1 cm. cells and a S 68/49 filter. The method was proved by detg. the Pt content in standard solus. corresponding roughly to those of cathodic slime. *Detn. of Pt in cathodic slime without extn.*: dissolve about 1.5 g. of slime contg. no NH₄ salts in 30 ml. I, evap. to dryness, then evap. once with 10 ml. VI and twice with 30 ml. II. Treat the residue with 30 ml. III, add 0.1 g. NaCl and evap. to dryness. Dissolve residue in 50 ml. V, filter the PbCl₂, and recrystallize the remaining PbCl₂ from hot water. Mix the filtrates, add 7 ml. VII, dil. with V to 250 ml., and det. the extinction of the soln. The method was proved by detg. Pt in standard solus. contg. large amts. of Pb and Pt in a cathodic slime. Z. Kurtzka

MINCZEWSKI, Jerzy; CHWASTOWSKA, Jadwiga

Determination of impurities in very pure chromium. I. Determination of silicon and iron. Chem anal 6 no.5:715-723 '61.

1. Department of Analytical Chemistry, Politechnical College, Warsaw.

CHWASTOWSKA, Jadwiga

Determination of trace amounts of impurities in highly pure chromium. II. Determination of sodium potassium, calcium, manganese and magnesium. Chem anal 7 no.4:731-739 '62.

1. Department of Analytical Chemistry, Politechnic, Warsaw.

CHWASTOWSKA, Jadwiga

Application of N-benzoyl-N-phenylhydroxylamine to the
extraction of heavy metals. Chem anal 7 no.4:859-860
'62.

1. Department of Analytical Chemistry, Polytechnic, Warsaw.

CHWASTOWSKA, Jadwiga; MARCZENKO, Zygmunt; STOLARCZYK, Urszula

Turbidimetric determination of traces of chlorides in reagents after their separation with a carrier. Chem anal 8 no.4:517-520 '63.

1. Department of Analytical Chemistry, Polytechnic College, Warsaw.

SKORKO-TRYBULOWA, Zofia; CHWASTOWSKA, Jadwiga

Determination of admixtures in silver alloys. Pt. 1. Chem anal
8 no.6:859-864 '63.

1. Department of Analytical Chemistry, Technical University, Warsaw.

CHWASTOWSKA, Jadwiga, mgr; SKORKO-TRYBULOWA, Zofia, dr

Determination of admixtures in silver alloys. Pt. 2. Chem anal
9 no.1:123-130 '64.

1. Department of Analytical Chemistry, Technical University, Warsaw.

CHWASTOWSKA, Jadwiga; MINCZEWSKI, Jerzy

Application of benzoylphenylhydroxylamine for the extraction by separation of heavy metals. Pt. 1. Chem anal 8 no.2:157-162 '63.

1. Department of Analytical Chemistry, Politechnika, Warsaw.

9,6150
21.6000

29106
P/046/61/006/010/001/003
D256/D302

AUTHORS: Chwaszczewska, Janina; Chwaszczewski, Stefan, and Dybowski, Kazimierz

TITLE: Solid - state detectors for alpha - particles

PERIODICAL: Nukleonika, v. 6, no. 10, 1961, 635 - 641

TEXT: Gold - silicone surface barrier detectors were produced, and the techniques developed as well as the performance characteristics of the detectors are described. Samples of n-type silicone monocrystals of 100 and 265 ohm · cm resistivity were treated as follows: 1) Polished with fine abrasive powder (14 - 20 μ grain); 2) acid etched for 10 min at 0°C; 3) washed in distilled water; 4) dried; 5) left for 24 hours in the presence of water vapors; 6) a 1 μ layer of gold was vacuum-evaporated onto the surface. To obtain a good electrical contact with the silicone and the gold presented difficulties; the most satisfactory results were obtained by simply pressing the electrodes against the silicone and gold surfaces. The size of the detectors ranged from 1 x 2 x 3 mm to 1.5 x 5 x 5 mm. The detectors were tested with alpha-particles from a Pu^{239} source by measuring the dependence of the

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Solid - state detectors for ...

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D256/D302

pulse-height, the signal - to - noise ratio and the energy resolution upon the load resistance and bias voltage. The best resolution observed was approx. 7%; however, it is stated that it may be due to a contribution from the thickness of the alpha-source. Professor G.N. Flerov is mentioned in connection with the advice given to the authors. There are 9 figures and 9 references: 1 Soviet-bloc and 8 non-Soviet-bloc . The most recent references to the English-language publications read as follows: G. Dearnaley and A.B. Whitehead, Nucleonics, 19, N 1 (1961); T.A. Love, et.al., ORNL Report, 3016, 1960; Avivi and Vavin, Rev. Sci. Instrum. v. 31, N 3 (1960).

ASSOCIATION: Instytut badań jądrowych PAN, Warszawa, Dział techniki reaktorowej (Institute of Nuclear Research, PAS, Warsaw, Reactor Engineering Division)

SUBMITTED: June, 1961

Card 2/2

CHWASZCZEWSKA, Janina; CHWASZCZEWSKI, Stefan; DYBOWSKI, Kazimierz

Silicon nuclear radiation detectors. Przegl elektroniki 3
no.6:349-352 Je '62.

1. Zaklad I-B Fizyki Jadrowej i Zaklad IX - Instytut Badan
Jadrowych, Warszawa.

KHIVASHCHEVSKA, Yanina [Chwaszczewska, Janina]; SHEKINTER, Andrzhey
~~[Szechter, Andrzej]~~

Silicon detectrs of thermal neutrons. Nukleonika 8 no.7:
489-493 '63.

1. Institut Yadernikh issledovaniy, Varshava-Sverk, Otdeleniye
Yadernoy fiziki i Otdeleniye reaktornoy tekhniki.

CHWASZCZEWSKA, Janina; DAKOWSKI, Mirosław; PRZYBIRSKI, Wincenty; SOWINSKI, Miechysław; SZECHTER, Andrzej; KIERZEK-PECOLT, Elwira; WEYDMAN, Zygmunt; ZALEWSKI, Edmund

Recent results on silicon semiconductor nuclear particle detectors in Poland. Nukleonika 8 no.11:755-770 '63

1. Institute of Nuclear Research, Warsaw-Swierk (for Chwaszczewska, Dakowski, Przyborski, Sowinski, Szechter). 2. Institute of Physics, Polish Academy of Sciences, Warsaw (for Kierzek-Pecolt, Weydman, Zalewski).

ACCESSION NR: AP4015317

P/0046/64/004/001/0011/0018

AUTHOR: Chwaszczewska, J. (Khvashchevska, Yanina); Dakowski, M. (Dakovski, Miroslav)
Dabrowski, A. (Dombrowski, Andrey); Sowinski, M. (Sovin'ski, Mechislav); Slapa,
Mechislav

TITLE: Silicon surface-barrier detectors with guard rings, and their application

SOURCE: Nukleonika, v. 4, no. 1, 1964, 11-18

TOPIC TAGS: semiconductor detectors, silicon semiconductors, surface-barrier
semiconductor, charged-particle detector, charged-particle spectrometry, guard-ring
detector, high-resolution detector, low-noise detector

ABSTRACT: This article describes a method to improve the capability of silicon
surface-barrier detectors with a depletion layer thickness of about 1 mm so that
they may be successfully applied in spectrometry of 12 MeV protons, 50 MeV
alpha-particles, 16 MeV deuterons and 700 KeV beta-rays. The method utilizes
guard rings, and its principle is that the minority carrier current, which is the
main cause of noise, consists of two components: a volume current and a surface
current. An experiment is described demonstrating the effect of a guard ring on
the performance of a n-type silicon detector. A simple circuit is set up shown in
Fig 2 of Enclosure 02 for measuring the current-voltage characteristics of
Card 1/63

ACCESSION NR: AP4015317

a) the detector connected to the ring, b) the detector disconnected from the ring and c) the ring itself. The schematic diagram of the spectrometer is shown in Fig. 4 of Enclosure 03. The performance characteristics of this instrument are summarized as follows: 1) The resolution power for 8.78 MeV alpha-particles is 16-40 KeV depending on the bias voltage and condition of the detector surface. 2) The pulse amplitude does not depend on the character of the light charged particle, but is fairly proportional to the energy of that particle, within 200 KeV accuracy. These relationships are not valid in the case of heavy particles because of the "ionization effect", which must be taken into account. 3) The spectrometer can be used for the identification of charged particles: each type of elastically scattered particles reaches its maximum at different values of bias voltage. The shift of these maxima of distinct energy levels appears to be proportional to the energy loss dE/dx for any respective particle. The design described here is also very useful in a telescope system which consists of dE/dx and E detectors. The spectrometer was tested at the Institute of Nuclear Physics (Instytut Fizyki Jadrowej), Krakow.

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ACCESSION NR: AP4015317

"The authors gratefully acknowledge the valuable suggestions received from Professor B. BURAS, who was always interested in this work, and the assistance of Professor G. NIEWODNICZAN'SKI in enabling them to use the cyclotron at the Institute of Nuclear Physics, Krakow. Technician B. GRUZDY has earned their gratitude for building the low-noise charge-sensitive preamplifier used in the measurements of beta-ray spectra." Orig. art. contains 7 diagrams.

ASSOCIATION: Institut yadernykh issledovaniy, Warsaw-Swierk (Institute of Nuclear Research)

SUBMITTED: 15Oct63

DATE ACQ: 13Mar64

ENCL: 03

SUB CODE: GE, PH, SD

NO REF SOV: 000

OTHER: 014

Card 3/83

KHVASHCHEVSKA, YANINA [Chwaszczewska, Janina]; DAKOVSKI, Miroslav [Dakowski, Miroslaw]; DOMBROVSKI, Andzhej [Dabrowski, Andrzej]; SOVIN'SKI, Mieczyslaw [Sowinski, Mieczyslaw]; SLAPA, Mieczyslaw [Slapa, Mieczyslaw].

Silicon surface-barrier detector with a guard ring and possibilities of applying it. Nukleonika 9 no.1:111-18 '64

1. Institut yadernykh issledovaniy, Varshava-Sverk, 2. Varshavskiy universitet, Varshava (for Dombrovski). 3. Institut yadernoy fiziki, Krakuv (for Slapa).

L 17783-65 EWT(1)/EWT(m)/EEG(b)-2 Pg-4 AFUC(b)/DIAAP/LTP(c)

ACCESSION NR: AP4047616

P/0046/64/009/009/0715/0724

AUTHOR: Chwaszczewska, J. (Khvasheva, Ya.): Roman, J. (Roman, Ye.)

TITLE: Large-area, high-resolution, semiconductor alpha particle spectrometer

SOURCE: Nukleonika, v. 9, no. 9, 1964, 715-724

TOPIC TAGS: alpha particle spectrometer, semiconductor alpha particle spectrometer, high resolution semiconductor spectrometer, large effective area spectrometer

ABSTRACT: A semiconductor alpha-particle spectrometer with 320 mm² of sensitive area, having a mosaic of four silicon surface-barrier detectors and individual low-noise, charge-sensitive preamplifiers is described. This spectrometer showed a resolving power of about 40 Kev for 5.3 Mev alpha particles at a temperature of about -25C. The background count is less than 1 count per day per channel in the energy spectrum ranging from 4 to 9 Mev. The overall drift of the system is less than 20 Kev per day and the nonlinearity is within 1%. The high-resolution, very low background count, and the simplicity of operation make this device ideally suited for alpha spectrometry on very low levels of activity, particularly in biological materials. "The authors thank Professor B. Buras and Professor L. Jur-

Card 1/2

L 17783-65

ACCESSION NR: AP4047616

kiewicz for their valuable remarks and opinions on this paper." Orig. art. has:
8 figures and 1 table.

ASSOCIATION: Institute of Nuclear Research, Warsaw-Swierk and Central Laboratory
for Radiological Protection, Warsaw

SUBMITTED: 19Nov63

ENCL: 00

SUB CODE: NP

NO REF SOV: 000

OTHER: 005

Card 2/2

L 17783-65 EWT(1)/EWT(m)/EEC(b)-2 Pq-4 APOC(b)/DIAAP/IJP(c)

ACCESSION NR: AP4047516

P/0046/64/009/009/0715/0724

AUTHOR: Chwaszczewska, J. (Khvashchevskaya, Ya.); Roman, J. (Roman, Ye.)

TITLE: Large-area, high-resolution, semiconductor alpha particle spectrometer

SOURCE: Nukleonika, v. 9, no. 9, 1964, 715-724

TOPIC TAGS: alpha particle spectrometer, semiconductor alpha particle spectrometer, high resolution semiconductor spectrometer, large effective area spectrometer

ABSTRACT: A semiconductor alpha-particle spectrometer with 320 mm of sensitive area, having a mosaic of four silicon surface-barrier detectors and individual low-noise, charge-sensitive preamplifiers is described. This spectrometer showed a resolving power of about 40 Kev for 5.3 Mev alpha particles at a temperature of about -25C. The background count is less than 1 count per day per channel in the energy spectrum ranging from 4 to 9 Mev. The overall drift of the system is less than 20 Kev per day and the nonlinearity is within 1%. The high-resolution, very low background count, and the simplicity of operation make this device ideally suited for alpha spectrometry on very low levels of activity, particularly in biological materials. "The authors thank Professor B. Buras and Professor L. Jur-

Card 1/2

L 17783-65

ACCESSION NR: AP4047616

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_____ kiewicz for their valuable remarks and opinions on this paper." Orig. art. has:
8 figures and 1 table.

ASSOCIATION: Institute of Nuclear Research, Warsaw-Swierk and Central Laboratory
for Radiological Protection, Warsaw

SUBMITTED: 19Nov63

ENCL: 00

SUB CODE: HP

NO REF SOV: 000

OTHER: 005

Cord 2/2

L 43572-65 EWA(h)/LWT(m)

ACCESSION NR: AP5012919

PO/0046/64/009/010/0779/0784

AUTHOR: Roman, Jerzy (Roman, Ye.); Bilkiewicz, Jan (Bil'kevich, Ya.); Chwaszczewska, Janina (Khvashchevska, Ya.)

TITLE: Use of a semiconductor spectrometer for fast identification of alpha-emitting nuclides in urine

SOURCE: Nukleonika, v. 9, no. 10, 1964, 779-784

TOPIC TAGS: semiconductor device, spectrometer, radiation detecting device, diagnostic instrument

ABSTRACT: The article describes a method for fast identification and determination of various alpha-emitting radionuclides in urine. It utilizes a silicon surface-barrier spectrometer with a sensitive area of 200 mm² and is much less time-consuming than other known methods. The device can detect 10⁻³ counts/milligram of ash and has an energy resolution of at least 100 kilo-electronvolts at 5.3 mega-electronvolts; the background counting rate is less than 2 counts/hour in the range 4-9 mega-electronvolts. An experiment is described in which radium-226 and its daughters were detected in contaminated urine; the same technique was used for identifying the presence of thorium-228, uranium-238, uranium-234 and polonium-210.

Card 1/2

L 43572-65

ACCESSION NR: AP5012919

"The authors wish to thank Prof. B. Buras and Prof. Dr. L. Jurkiewicz for their interest in this subject and helpful suggestions." Orig. art. has: 4 graphs.

ASSOCIATION: Central Laboratory for Radiological Protection, Warsaw;
Laboratory II for Nuclear Physics, Institute of Nuclear Research, Warsaw-Swierk

SUBMITTED: 19Nov63

ENCL: 00

SUB CODE: LS, OP

NO REF SOV: 000

OTHER: 006

JPRS

Card

2/2 MB

L 55187-65 EWT(t)/EWP(t)/EWP(b)/EWA(h) IJP(c) D
 ACCESSION NR: AP5017439

PO/0046/65/0010/002/0069/0075

AUTHOR: Krogulski, T. (Krogul'ski, Tadeusz); Chwaszczewska, J. (Khvashchevskaya, Yanina); Jaskola, M. (Yaskula, Mariyan)

TITLE: dE/dx Surface-barrier silicon detectors 17

SOURCE: Nukleonika, v. 10, no. 2, 1965, 69-75 22
20
B

TOPIC TAGS: silicon, radiation detecting device 19

ABSTRACT: A new technology of type dE/dx surface-barrier detectors was developed. The detectors obtained had thickness 70, 50, 40, 30 and 25 μ , active area 1-1.5 cm² while their barrier could be broadened over the whole geometrical detector thickness. The detectors were studied by means of natural polonium and thorium alpha sources and 24-Mev alpha-particles and 127-Mev deuterons from the cyclotron. "We express our thanks to Prof. B. Buras and Prof. E. Vil'gel'm for their constant attention to this work. Thanks are also given to Prof. G. Nevodnichanskiy and the members of the Institute of Nuclear Physics in Cracow for the use of the cyclotron and assistance in conducting the experiments." Orig. art. has: 1 figure, 7 graphs.

Card 1/2

L 55187-65

ACCESSION NR: AP5017439

ASSOCIATION: Institut Yadernyykh Issledovaniy, Warsaw-Sverk (Institute of Nuclear Research); Kafedra Atomnogo Yadra, Varshavskogo Universiteta (Atomic Nucleus Department, Warsaw University) 2

SUBMITTED: 21Apr64

ENCL: 00

SUB CODE: NP

NR REF SOV: 000

OTHER: 003

NA

Card 2/2

L 00282-66 EWT(m)/EWA(h)

ACCESSION NR: AP5013679

PO/0053/65/000/004/0174/0179
621.387

AUTHOR: Chwaszczewska, J.; Dakowski, M.; Przyborski, W.; Sowinski, M.

TITLE: Semiconductor nuclear radiation detectors and their applications

SOURCE: Przegląd elektroniki, no. 4, 1965, 179

TOPIC TAGS: radiation detector, nuclear radiation detector, semiconductor
radiation detector, semiconductor device

ABSTRACT: The paper discusses the advantages of semiconductor p-n junction nuclear radiation detectors and compares them with Geiger-Muller detectors. The paper then describes the design and performance of three types of detectors developed in the Zakład II and IA (Departments II and IA) of the Instytut Baden Jadrowych (Institute of Nuclear Research). The first type, for the detection of heavy charged particles, is made of n-type silicon of 50-2000 ohm-cm resistivity. The p-n junction was produced by chemical treatment of the silicon surface. This detector has an active area of 12 mm and a resolution of 16 keV for 8.776 -MEV particles. Such detectors were used in the Centralne Laboratorium Ochrony Radiologicznej (Central Laboratory for Radiation Protection). The second type was produced as a result of the cooperation with Katedra Fizyki Jadra Atomowego Uniwersytetu

Card 1/2

I 00282-66

ACCESSION NR: AP5013679

Warszawskiego (Department of Nuclear Physics, Warsaw University) in the development of a technology for the production of dE/dX surface-barrier detectors for particle identification. Detectors between 25 and 70 μ thick were produced. In order to extend the barrier region, detectors with a guard ring were produced in which the width of the barrier region was 1.2 mm, making it possible to use them as spectrometers of β -radiation in the energy range up to 1 MEV. Detectors much greater than 1 mm in active area are under development in the Institute of Nuclear Research, using the method based on lithium drift and p-type germanium. Orig. art. has: 9 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: EC, NP

NO REF SOV: 000

OTHER: 000

Card 2/2

L 8877-66

EWP(b)/EWA(h)/EWP(t)

IJP(c)

JD

ACC NR: AP6001627

SOURCE CODE: PO/0046/65/010/004/0251/0254

AUTHOR: Chwaszczewska, Janina; Dakowski, Mirosław; Prayborski Wincenty; Sowinski, Mieczysław

ORG: Institute of Nuclear Research, Swierk (Instytut Badan Jadrowych)

TITLE: Lithium-drifted detectors for beta-and gamma-spectrometry

SOURCE: Nukleonika, v.10, no.4, 1965, 251-254

TOPIC TAGS: lithium, semiconductor device, particle detector, spectrometer, beta spectroscopy, gamma spectroscopy

ABSTRACT: The performance of lithium-drifted β and γ -semiconductor spectrometers is described. Lithium-drifted silicon diodes prepared on the basis of the Pell method made possible the construction of β -particle detectors with thin window and very good characteristics. The depletion layer thickness is 2.8 mm and active area -- 160 mm². For gamma spectroscopy, the lithium-drifting process was carried out on p-type gallium-doped germanium samples of 50 Ω /cm resistivity and about 100 μ sec life time minority carriers. A compensated region 1.5 mm thick was obtained. Beta and gamma spectra for sup 207 Bi are illustrated. The authors thank Prof. B. Bura of this Institute for his constant interest in this work and helpful suggestions. They also are obliged to Prof. G. Floroy from the Joint Institute of Nuclear Research in Dubna for steady encouragement. The supply of germanium by TEWA is gratefully

Card 1/2

L 8877-66

ACC NR: AP6001627

acknowledged. Orig. art. has 3 figures. NA

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 003 / OTH REF: 001

Cord 2/2 *ph*

L 8878-66 EWP(b)/EWP(t) IJP(c) JD

ACC NR: AP6001628

SOURCE CODE: PO/0046/65/010/004/0255/0257

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tute of Nuclear Research, Warsaw (Instytut Badan Jadrowych)

TITLE: Gold-silicon surface-barrier beta-spectrometer with multi-guard-ring.

SOURCE: Nukleonika, v.10, no.1, 1965, 255-257

TOPIC TAGS: particle detector, spectrometer, beta spectroscopy

ABSTRACT: Gold-silicon surface-barrier detectors with very low leakage-current, good energy resolution at high reverse bias, and high stability in long-term operation and containing multiple-guard-rings were constructed. The detectors were tested up to 1,500 v reverse bias at room temperature without any sign of breakdown. A long-term test proved that the detectors operate for several weeks in air and in vacuum without any visible changes in their characteristics and any measurable increase of noise level. The detectors were used as high resolution beta spectrometers. The authors wish to thank Prof. B. Buras for reading the manuscript and valuable comments. Orig. art. has: 3 figures. [NA] 55

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L 09211-67

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SOURCE CODE: PO/0046/66/011/005/0359/0367

AUTHOR: Chwaszczewska, Janina--Khvashchevska, Ya.; Freindl, Ludwik--Frendl', L.; Karcz, Waldemar--Karch, V.; Przyborski, Wincenty--Priborski, V.; Slapa, Mieczyslaw

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TITLE: Semiconductor system for charged particles identification

SOURCE: Nukleonika, v. 11, no. 5, 1966, 359-367

TOPIC TAGS: particle counter, radiation counter

ABSTRACT: A system consisting of two semiconductor counters of types dE/dx and E was built to separate particles from nuclear reactions. The properties of this system were checked by detection of products of reactions induced by 24.8 Mev alpha particles and 12.4 Mev deuterons on Au, C, and Ca nuclei. The authors thank Professor H. Niewodniczanski and Professor B. Buras for their interest in this work. The authors also thank Doctor K. Grotowski, Doctor A. Strzalkowski and Doctor A. Budzanowski for their advice and encouragement throughout the progress of this work. They give special thanks to Cyclotron Operation Staff for running the machine. Orig. art. has: 13 figures. [Orig. art. in Eng.] [NA]

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26.2312

AUTHOR: Chwaszczewski, StefanTITLE: Impulsing a High-Frequency Ion Source 21

PERIODICAL: Nukleonika, 1960, Vol. 5, No. 6, pp. 355 - 360

TEXT: The author describes an impulsing test with a Thonemann type ion source by means of a modulated high-frequency field and the application scope of the method as established in the test. A cross section diagram of the source used in the test is shown in Figure 1. The envelope of the source was slightly over 20 cm long, 3 cm in diameter, made of Rth glass and had a waist-like contraction next to the anode. The extraction electrode of aluminum was provided with a quartz cap. The source was built at the Dział Budowy Akceleratora (Accelerator Construction Section) of the Instytut Badań Jądrowych (Institute of Nuclear Research). The envelope of the source bore a solenoid of 5 turns of silver-coated copper wire with a cross section area of 2.4 mm^2 . The solenoid had a number of merit of 450 at a frequency of 25 Mc. The solenoid constituted part of the oscillation circuit of the output stage of the generator which used two GU-13 tubes. The output stage was excited by a generator using two 6P6 tubes,

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with a frequency range of 15 - 25 Mc. The system was controlled by means of a rectangular pulse generator Ribet Desjardins type 458A. After detection, the high frequency pulse induced in a coil coupled to the solenoid was fed to one of the inputs of a two-ray oscilloscope 2 KO. Plasma excited by high frequency was extracted from the envelope by means of d-c voltage fed to extraction electrodes. After passing the extraction electrode, the ion beam hit the collector electrode. The voltage pulse derived from the collector through an 800 ohm resistor was then fed to the other input of the 2 KO oscilloscope. The source was evacuated by vacuum pumps with a capacity of 1,000 l/sec at a pressure of 10^{-5} mm Hg. The build-up and decay time of the pulse as measured for a modulation pulse duration of 10 μ sec was less than 0.2 μ sec. Tests showed that under optimum conditions the amplitude of ion current was the same as the current of a continuously operating source (1 ma). Change of pulse frequency from 50 cps to 5 kc did not influence the shape of pulses. The conclusions drawn by the author from the experiment are: 1) The greatest difficulty in forming short ion pulses is the statistical dispersion of discharge ignition moments. Special pulse generation systems with higher amplitudes will reduce this parameter. Pulses of 30 - 40 μ sec were obtained by means of the device used in the above experiment. 2) Pulsing of the excitation field reduces thermal load of the envelope walls and thus

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gives extra service life. Therefore, the method is recommended for impulsing ion sources by means of an extraction field. There are 5 figures and 6 references: 4 English, 1 German and 1 Soviet.

ASSOCIATION: Instytut Badań Jądrowych PAN, Warszawa, Zakład Inżynierii Reaktorowej (Institute of Nuclear Research, Polish Academy of Sciences, Warsaw, Department of Reactor Engineering)

SUBMITTED: April 1960

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CHWASZCZEWSKI, Stefan

Energetic parameters of high frequency discharge in hydrogen.
Nukleonika 5 no.12:863-874 '60.

1. Instytut Badan Jadrowych, Warszawa, Zaklad Inzynierii
Reaktorowej

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D256/D302

AUTHORS: Chwaszczewska, Janina; Chwaszczewski, Stefan, and Dybowski, Kazimierz

TITLE: Solid - state detectors for alpha - particles

PERIODICAL: Nukleonika, v. 6, no. 10, 1961, 635 - 641

TEXT: Gold - silicone surface barrier detectors were produced, and the techniques developed as well as the performance characteristics of the detectors are described. Samples of n-type silicone monocrystals of 100 and 265 ohm · cm resistivity were treated as follows: 1) Polished with fine abrasive powder (14 - 20 μ grain); 2) acid etched for 10 min at 0°C; 3) washed in distilled water; 4) dried; 5) left for 24 hours in the presence of water vapors; 6) a 1 μ layer of gold was vacuum-evaporated onto the surface. To obtain a good electrical contact with the silicone and the gold presented difficulties; the most satisfactory results were obtained by simply pressing the electrodes against the silicone and gold surfaces. The size of the detectors ranged from 1 x 2 x 3 mm to 1.5 x 5 x 5 mm. The detectors were tested with alpha-particles from a Pu²³⁹ source by measuring the dependence of the

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